

PHOTOGRAPHIC INTERPRETATION REPORT



SIGNIFICANT
RAILROAD BRIDGE
AND RAIL YARD
RESTORATION

NORTH VIETNAM

NPIC/R-68/69
AUGUST 1969

Declass Review by NIMA/DOD

GROUP 1 EXCLUDED FROM
AUTOMATIC DOWNGRADING
AND DECLASSIFICATION

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NO FOREIGN DISSEM EXCEPT [REDACTED]

SUMMARY

The North Vietnamese are engaged in the repair and reconstruction of railroad bridges and rail yards in an effort to restore and maintain the rail system previously subjected to intensive airstrikes. While concentrated rail repair efforts during the bombing period kept the rail system serviceable, even the best of these repairs were of a temporary nature. Such temporary measures as bypass bridges, rail ferries, and temporary bridge reconstruction were used rather than permanent repair of the original bridge structures. In many cases these temporary measures are still being used and many original bridges listed as reconstructed are of less than permanent construction. Repairs of a more permanent nature have been observed since the bombing halt. These include the complete restoration of numerous original bridge structures.

The tracks of critical rail yards have been repaired, although many associated facilities such as warehouses have not been replaced.

BASIC DESCRIPTION

RAILROAD BRIDGE SERVICEABILITY

During the bombing, the operational status of the rail system in at least the northern portion of North Vietnam was maintained primarily through expedient rail repair. The primary factors contributing to the continued serviceability of the rail system were the maintenance of operational bridge crossings through the use of multiple bypass rail bridges and temporary rapid rail bridge repair. In areas where repair was not feasible, as over larger streams, rail ferries were utilized. These were particularly useful across the Red River at Hanoi and across the Riviere Claire at Viet Tri.

Repair or reconstruction has been observed at 18 of the 28 significant river crossings covered in this report. The rail bridges at Lao Cai and Thanh Hoa were never destroyed by airstrike (Figure 1 and Table 1). At eight locations the original bridge remains unserviceable with no reconstruction evident and temporary bypass rail bridges are still in use. Bridges at 14 locations have been replaced at the site of the original destroyed bridge (Figures 1-3) and existing bypass rail bridges are being maintained at some of these sites. Bridges are being reconstructed at four original sites and at three of these sites, located north of Vinh, adjacent bypass rail bridges remain operational (Figure 4).

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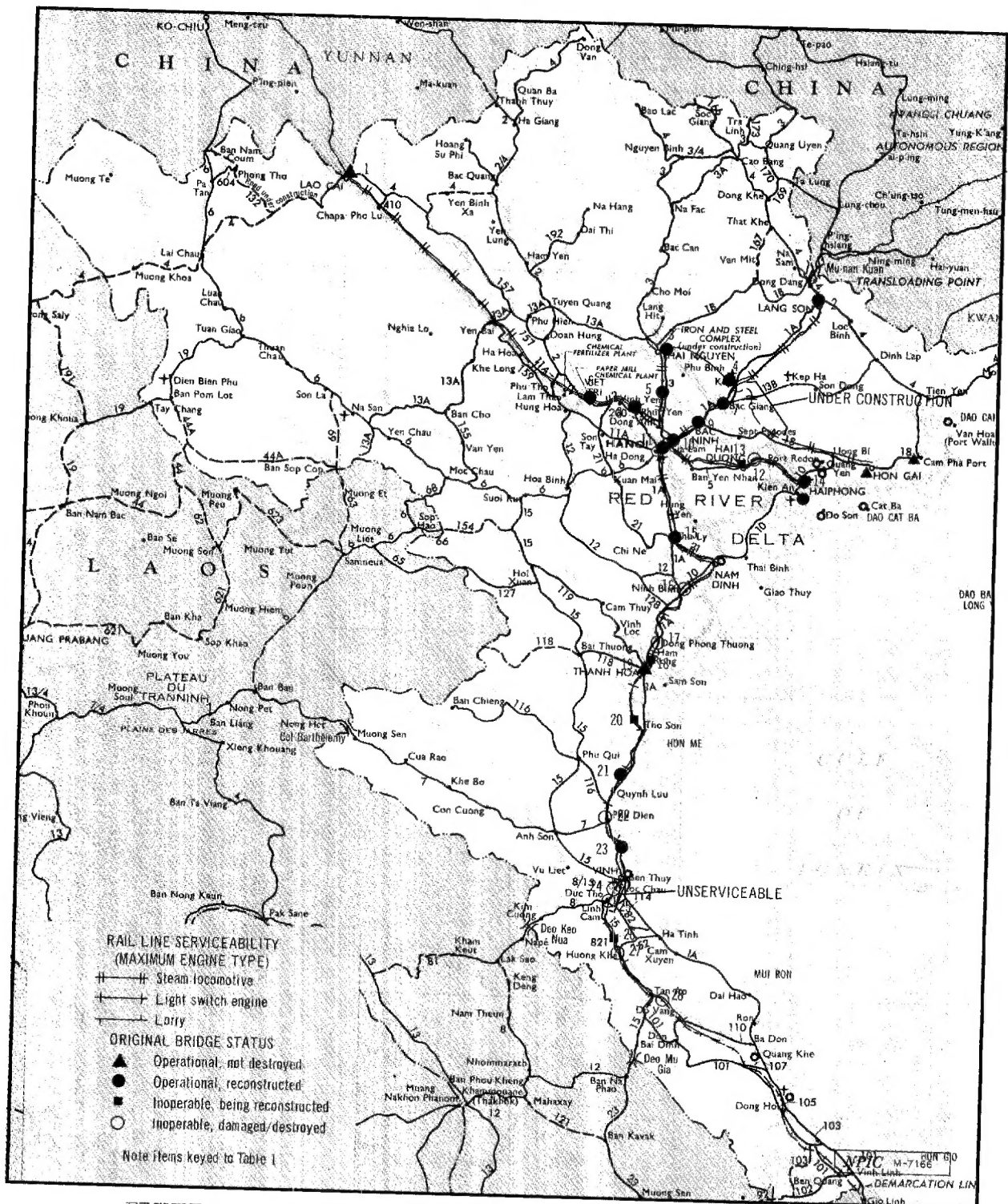


FIGURE 1. SELECTED MAJOR RAILROAD BRIDGES, NORTH VIETNAM

Table 1. Significant Railroad Bridges, North Vietnam

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Item	Place Name	Geo. Coordinates	BS Number	Remarks	Item	Place Name	Geo. Coordinates	BS Number	Remarks
1	Ho Kou Railroad/Highway Bridge over the Nan Chi River, Lao Cai	22-30-25N 103-58-09E	25X1A	Original bridge is operational (bridge was never struck).	15	Phu Ly Railroad Bridge over the Song Lap	20-32-50N 105-55-15E	25X1A	Original bridge is reconstructed and operational. One bypass rail bridge is operational.
2	Lang Son Railroad/Highway Bridge over the Song Ky Giang	21-50-52N 106-45-42E	25X1A	Original bridge is reconstructed and operational. Three bypass rail bridges are unserviceable.	16	Ninh Binh Railroad/Highway Bridge over the Song Day	20-15-40N 105-59-20E	25X1A	Original bridge is unserviceable. No reconstruction is observed. One bypass rail bridge is operational.
3	Lang Lau Railroad Bridge over the Song Cau	21-33-07N 105-53-48E	25X1A	Original bridge is reconstructed and operational. One bypass rail bridge is unserviceable.	17	Dong Phong Thuong Railroad/Highway Bridge over the Song Len	19-58-33N 105-50-50E	25X1A	Original bridge is unserviceable. No reconstruction is observed. One bypass rail bridge is serviceable and one is under construction.
4	Dong Muc Railroad Bridge over the Song Thuong	21-27-16N 106-14-13E	25X1A	Original bridge is operational. One bypass rail bridge is probably operational.	18	Phuong Dinh Railroad/Highway Bridge over the Lach Trung	19-51-03N 105-48-17E	25X1A	Original bridge is being reconstructed. Two bypass rail bridges are operational.
5	Ha Gia Railroad Bridge over the Song Cong	21-19-36N 105-52-40E	25X1A	Original bridge is reconstructed and operational. One bypass rail bridge is unserviceable.	19	Thanh Hoa Railroad/Highway Bridge over the Song Ma	19-50-12N 105-47-54E	25X1A	Original bridge is operational (bridge was never completely destroyed by airstrikes).
6	Viet Tri Railroad/Highway Bridge over the Riviere Claire	21-17-55N 105-26-58E	25X1A	Original bridge is reconstructed and operational. No bypass rail bridges are observed.	20	Thi Long Railroad Bridge over the Suoi Cay Giang	19-31-50N 105-42-50E	25X1A	Original bridge is probably being reconstructed. One bypass rail bridge is operational and one is unserviceable.
7	Bac Giang Railroad/Highway Bridge over the Song Thuong	21-16-28N 105-11-24E	25X1A	Original bridge is reconstructed and operational. Two bypass rail bridges are unserviceable.	21	Qui Vinh Railroad Bridge over the Song Hoang Mai	19-15-45N 105-41-20E	25X1A	Original bridge is reconstructed and operational. One bypass rail bridge is operational and two are unserviceable.
8	Dai Loi Railroad Bridge over the Song Ca Lo	21-15-30N 105-41-35E	25X1A	Original bridge is reconstructed and operational. One bypass rail bridge is unserviceable and one is of undetermined status.	22	Dien Chau Railroad Bridge over the Song Bang	18-58-20N 105-34-55E	25X1A	Original bridge is unserviceable. One bypass rail bridge is operational and two are unserviceable.
9	Dap Cau Railroad/Highway Bridge over the Song Cau	21-12-15N 106-05-42E	25X1A	Original bridge is reconstructed and operational. One bypass rail bridge is serviceable and one is unserviceable.	23	Tam Da Railroad Bridge over the Song Cua Lo	18-50-53N 105-39-19E	25X1A	Original bridge is reconstructed and operational. One bypass rail bridge is unserviceable.
10	Hanoi Railroad/Highway Bridge over the Canal Des Rapides	21-04-35N 105-54-46E	25X1A	Original bridge is reconstructed and operational. One bypass rail bridge is operational and one is unserviceable.	24	Yen Thai Railroad Bridge over the Song Ca	18-35-44N 105-37-05E	25X1A	Original bridge has been destroyed and is unserviceable. No bypass rail bridges are observed.
11	Hanoi Railroad/Highway Bridge over the Red River	21-02-32N 105-51-53E	25X1A	Original bridge is reconstructed and operational.	25	Tho Thuong Railroad Bridge over the Song La Giang	18-32-30N 105-35-40E	25X1A	Original bridge has been destroyed and is unserviceable. No bypass bridges are observed.
12	Hai Duong Railroad/Highway Bridge East over the Song Rang	20-58-22N 106-23-29E	25X1A	Original bridge is unserviceable. No reconstruction is observed. One bypass rail bridge is operational and two are unserviceable.	26	Trai Hoi Railroad/Highway Bridge over the Ngan Sau	18-21-37N 105-36-58E	25X1A	Original bridge is being reconstructed. No bypass bridges are observed.
13	Hai Duong Railroad/Highway Bridge West over the Song Thai Binh	20-56-33N 106-21-29E	25X1A	Original bridge is being reconstructed. One bypass rail bridge is operational and one is unserviceable.	27	Xon Hoi Railroad/Highway Bridge over the Rao No	18-17-20N 105-38-30E	25X1A	Original bridge is destroyed and unserviceable. One bypass rail bridge is operational.
14	Haiphong Railroad/Highway Bridge over the Song Trun Bac	20-51-02N 106-40-15E	25X1A	Original bridge is reconstructed and operational. Two bypass rail bridges are unserviceable.	28	Thuong Phong Trung Railroad Bridge over the Rao Nay	17-54-41N 106-00-09E	25X1A	Original bridge is destroyed and unserviceable. One bypass rail bridge is operational.

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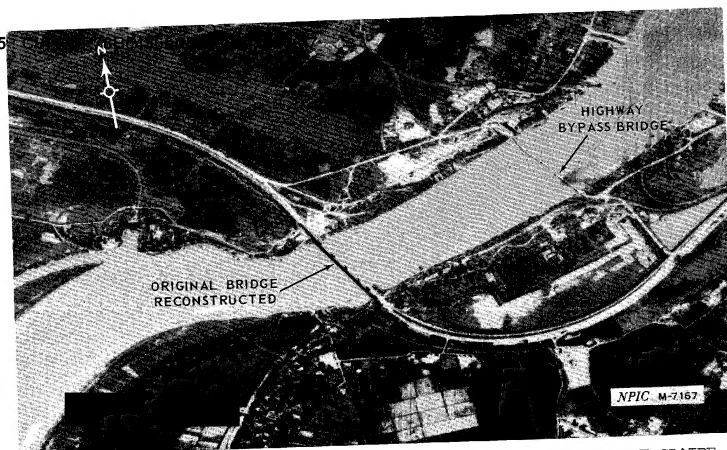


FIGURE 2. VIET TRI RAILROAD AND HIGHWAY BRIDGE OVER THE RIVIERE CLAIRE

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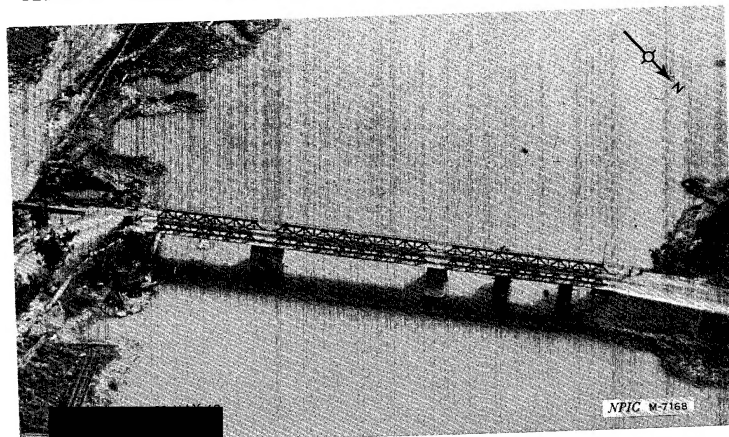


FIGURE 3. HALPHONG RAILROAD AND HIGHWAY BRIDGE OVER THE SONG TRAM BAC

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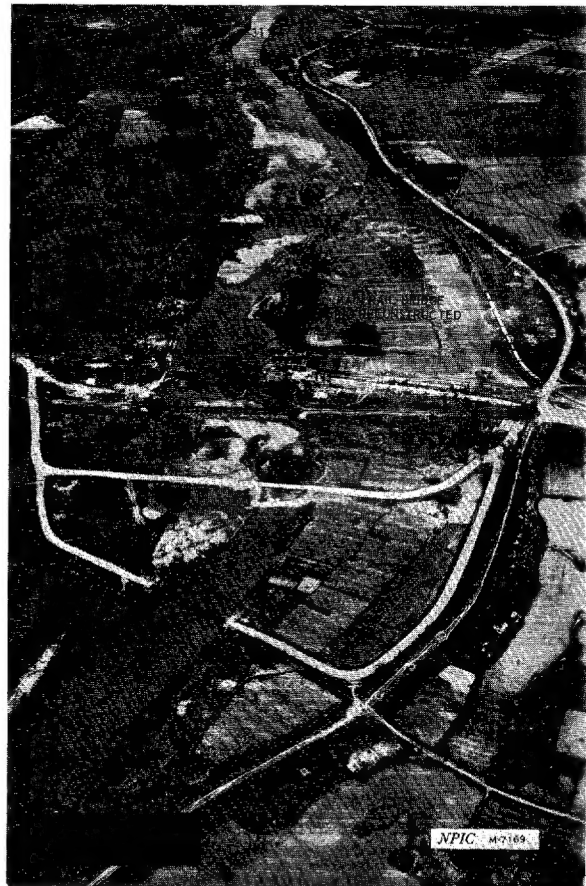
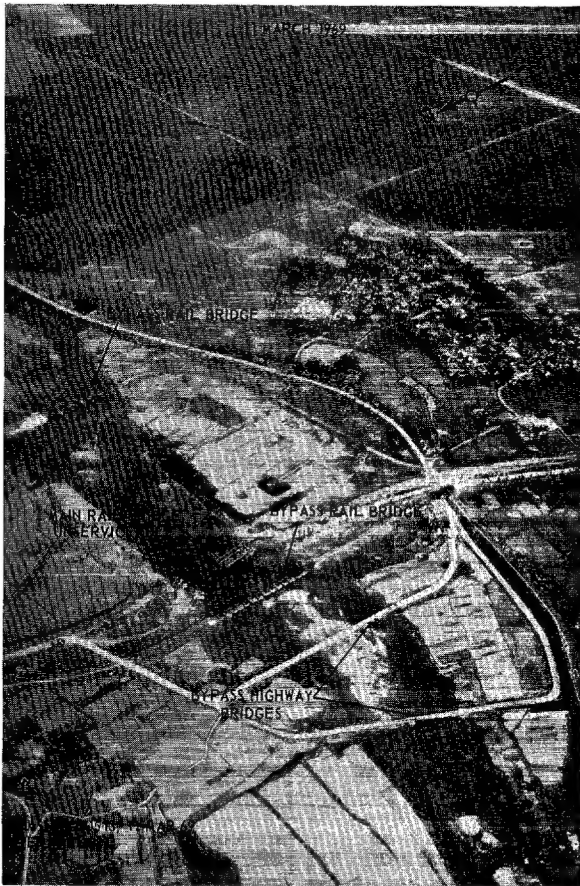


FIGURE 4. PHUONG DINH RAILROAD AND HIGHWAY BRIDGE OVER THE LACH TRUONG
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RAIL YARD SERVICEABILITY

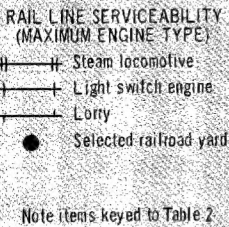
All major North Vietnamese rail yards, except the Hanoi and Haiphong rail yards, were heavily damaged during the bombing period. The most critical of these rail yards, such as those at Gia Lam and Yen Vien just north of Hanoi, have been repaired (Figure 6). These two yards receive material from China and the port of Haiphong for transloading and classification. At less critical rail yards, for example the Kep rail yards, only minimal through lines and bypass lines have been replaced (Table 2). The two major rail yards in the southern panhandle, Thanh Hoa and Vinh, have been restored and are very active (Figure 7).

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Table 2. Significant Rail Yards, North Vietnam

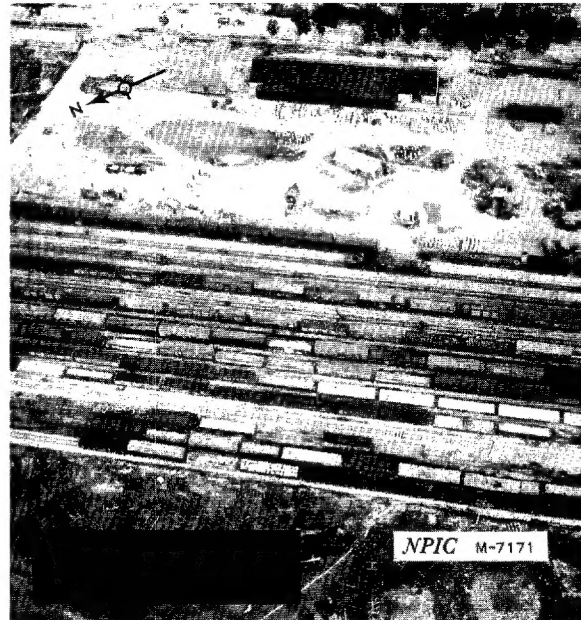
Item	Place Name	Geo. Coordinates	BE Number	Remarks
1	Kep Railroad Yards	21-24-42N 106-17-22E	[REDACTED]	Yards remain extensively damaged from airstrikes. Two through lines and one bypass line are serviceable.
2	Viet Tri Railroad Yard	21-17-56N 105-26-13E	[REDACTED]	Yard has been reconstructed and is operational. Five lines are serviceable. A turning wye is under construction.
3	Kinh No Railroad Yard	21-09-12N 105-51-15E	[REDACTED]	Yard is fully operational. Large amount of assorted rolling stock and extensive off-loading of supplies are observed.
4	Yen Vien Railroad Yard	21-05-03N 105-55-12E	[REDACTED]	Yard has been repaired and is fully operational. Extensive activity is observed.
5	Hanoi Railroad Station, Classification Yard, and Shops	21-01-07N 105-50-38E	[REDACTED]	Yard was never damaged and is fully operational. Extensive activity is observed.
6	Haiphong Railroad Station, Yard, and Shops	20-51-23N 106-41-37E	[REDACTED]	Yard was never damaged and is fully operational. Extensive activity is observed.
7	Vinh Railroad Station, Yard, and Shop	18-41-18N 105-40-05E	[REDACTED]	Rail yard has been repaired and is fully operational. It is the southern terminus of a continuous rail system. Moderate activity is observed.

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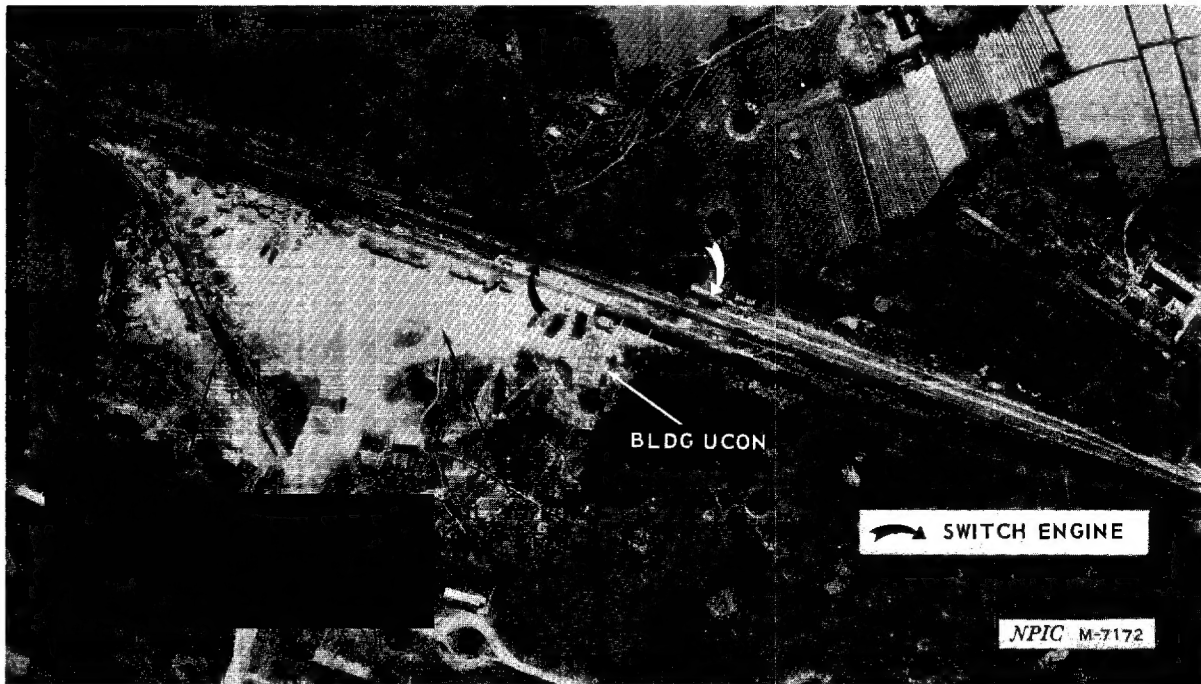
RAIL LINE SERVICEABILITY

At present all North Vietnamese rail lines north of Vinh are operational. Light switch engines, as opposed to heavy steam locomotives, operate on the less substantial line between Thanh Hoa and Vinh. The low capacity line between the Song La, 9 nm south of Vinh, and the Ma Thuong Transshipment Point, south of Bai Duc Thon, is operational only to lorry and two-axle flatcar traffic. The western portion of the Kep to Hon Gai Rail Line remains under construction.



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FIGURE 6. YEN VIEN RAILROAD YARD RESTORED



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FIGURE 7. VINH RAILROAD STATION, YARD, AND SHOP

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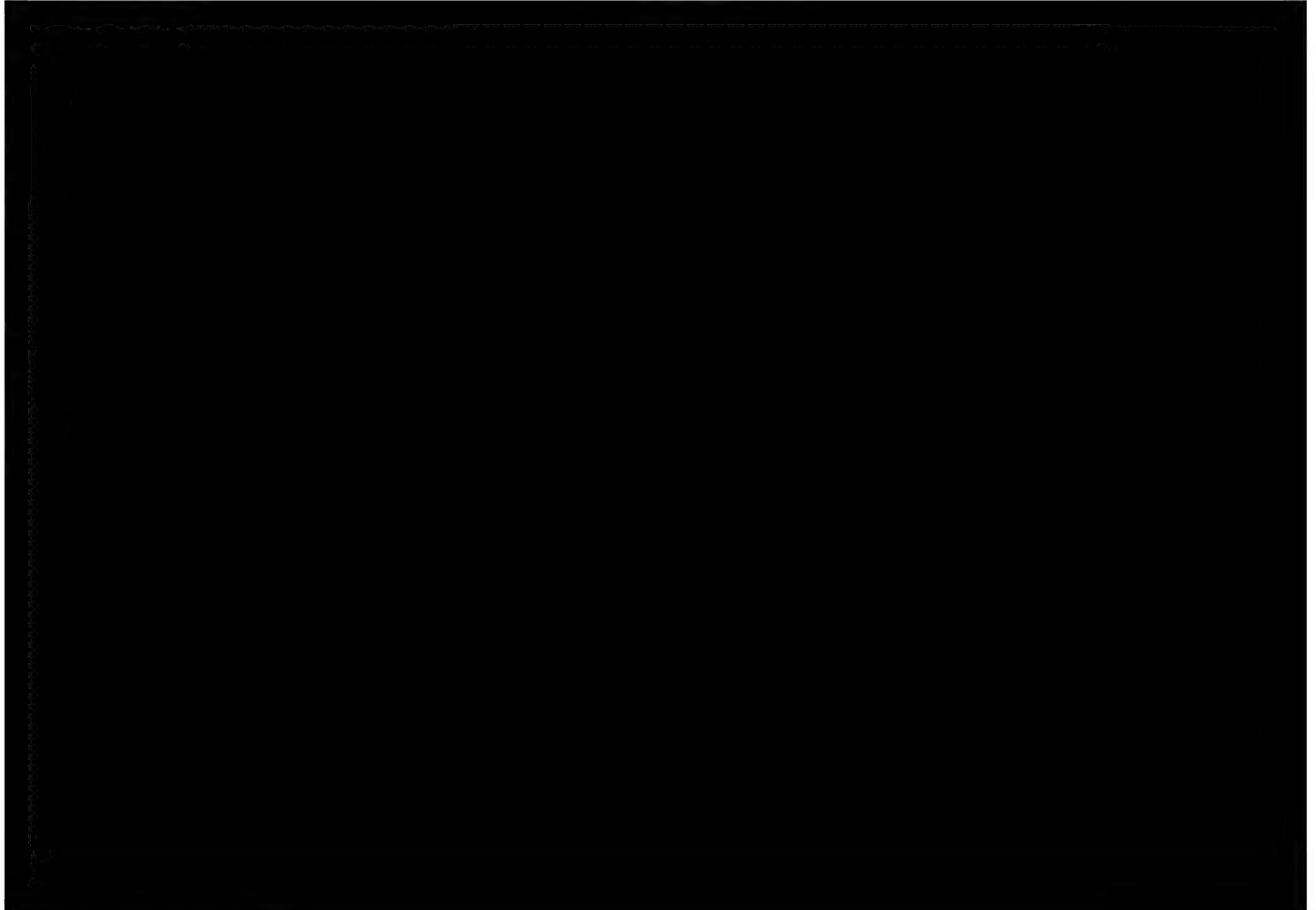
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REFERENCES

IMAGERY



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MAPS OR CHARTS

CIA. Map 51738, Sep 65 (SECRET)

REQUIREMENT

NPIC Project 172002NA

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